United States Patent [19]

Kosaka

[54] **METHOD FOR COMPUTING MAIN, FLASH AND BUMP EXPOSURES FOR DIRECT SCREENING**

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[30] **Foreign Application Priority Data**

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[52] **U.S. Cl.**................ **235/151.3**, 95/1.1, 235/64.7, 355/35, 355/83

[51] **Int. Cl.**...................... **G06f 15/20**, G03b 27/78

[58] **Field of Search** .... 444/1; 235/151.3, 64.7; 355/4, 35, 67, 83, 88; 95/1.1, 10 A

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[57] **ABSTRACT**

In a graph of experimental values giving as parameters the highlights, intermediate tone and shadow densities of the original and dot percents corresponding thereto respectively, curves representing the relations between the dot percent and the density of the original at varying bump exposure percents and varying amounts of flash exposures are shifted in parallel to concentrate their 50% points at the 50% point of the curve representing the case in which only main exposure is made to obtain graphs showing the relation between the dot percent and density difference. Approximate general equations of lower degree are derived from the resulting graphs to obtain equations of lower degree relating to bump exposure, main exposure and flash exposure for digital calculation. A computer includes circuits for electrically digitally calculating the equations. The parameters are fed in the desired combination to the computer for the calculation and indication of the results.

2 Claims, 12 Drawing Figures